

WE CLAIM:

1. A method for preparing an organosilane functionalized in the 3 position, comprising:
reacting an allyl compound according to formula I:



wherein X is selected from the group consisting of Cl, Br, I, F, CN, SCN, SH, SR, OH, NRR¹ and OR, wherein R and R¹, independent of one another, are selected from the group consisting of (C₁-C₆)alkyl or (C₃-C₇)allyl,

with a silane according to formula II:



wherein R², R³, R⁴, independent of one another, are selected from the group consisting of hydrogen, halogen, (C₁-C₆)alkyl, (C₁-C₆)haloalkyl, (C₃-C₆)allyl, (C₁-C₄)alkoxy, phenyl, aryl, or aralkyl,

wherein the reaction takes place in a reaction column under a pressure between 1 bar and 25 bar, in the presence of a heterogeneous platinum catalyst.

2. The method according to claim 1, wherein distillation takes place simultaneously with the reaction in the reaction column.

3. The method according to claim 1, wherein the silane is present in the reaction column in a stoichiometric excess with respect to the allyl compound.

4. The method according to claim 1, wherein the silane is introduced into the reaction column in a stoichiometric excess with respect to the allyl compound.

5. The method according to claim 1, wherein the reaction column includes a reaction zone, wherein a first product exits a first end of the reaction zone and a second product exits a second end of the reaction zone.

6. The method according to claim 5, further comprising condensing unreacted silane in the first product and reintroducing at least a portion of the condensed unreacted silane into the reaction zone.

7. The method according to claim 6, further comprising vaporizing a portion of the second product to form a vaporized stream and reintroducing at least a portion of the vaporized stream into the reaction zone.

8. The method according to claim 5, further comprising vaporizing a portion of the second product to form a vaporized stream and reintroducing at least a portion of the vaporized stream into the reaction zone.

9. The method according to claim 1, wherein the reaction column includes:
a reaction zone, a first separation zone located above the reaction zone, and a second separation zone located below the reaction zone, wherein a first product exits the reaction zone and enters the first separation zone, and a second product exits the reaction zone and enters the second separation zone.

10. The method according to claim 9, further comprising removing unreacted silane from the first separation zone, condensing at least a portion of the unreacted silane, and reintroducing at least a portion of the condensed unreacted silane into the first separation zone.

11. The method according to claim 10, further comprising removing a separated product from the second separation zone, vaporizing at least a portion of the separated product to form a vaporized stream, and reintroducing at least a portion of the vaporized stream into the second separation zone.

12. The method according to claim 9, further comprising removing a separated product from the second separation zone, vaporizing at least a portion of the separated product to form a

vaporized stream, and reintroducing at least a portion of the vaporized stream into the second separation zone.

13. A method for preparing chloropropyltrichlorosilane, comprising: reacting allyl chloride with trichlorosilane in a reaction column under a pressure between 1 bar and 25 bar, in the presence of a heterogeneous platinum catalyst.

14. The method according to claim 13, wherein distillation takes place simultaneously with the reaction in the reaction column.

15. The method according to claim 13, wherein the trichlorosilane is present in the reaction column in a stoichiometric excess with respect to the allyl chloride.

16. The method according to claim 13, wherein the trichlorosilane is introduced into the reaction column in a stoichiometric excess with respect to the allyl chloride.

17. The method according to claim 13, wherein the reaction column includes a reaction zone, wherein a first product exits a first end of the reaction zone and a second product exits a second end of the reaction zone.

18. The method according to claim 17, further comprising condensing unreacted trichlorosilane and reintroducing at least a portion of the condensed unreacted trichlorosilane into the reaction zone.

19. The method according to claim 18, further comprising vaporizing a portion of the second product to form a vaporized stream and reintroducing at least a portion of the vaporized stream into the reaction zone.

20. The method according to claim 17, further comprising vaporizing a portion of the second product to form a vaporized stream and reintroducing at least a portion of the vaporized stream into the reaction zone.

21. The method according to claim 13, wherein the reaction column includes:

a reaction zone, a first separation zone located above the reaction zone, and a second separation zone located below the reaction zone, wherein a first product exits the reaction zone and enters the first separation zone, and a second product exits the reaction zone and enters the second separation zone.

22. The method according to claim 21, further comprising removing unreacted trichlorosilane from the first separation zone, condensing at least a portion of the unreacted trichlorosilane, and reintroducing at least a portion of the condensed unreacted trichlorosilane into the first separation zone.

23. The method according to claim 22, further comprising removing a separated product from the second separation zone, vaporizing at least a portion of the separated product to form a vaporized stream, and reintroducing at least a portion of the vaporized stream into the second separation zone.

24. The method according to claim 21, further comprising removing a separated product from the second separation zone, vaporizing at least a portion of the separated product to form a vaporized stream, and reintroducing at least a portion of the vaporized stream into the second separation zone.